

REMARKS

Claim 10 has been rejected by the Examiner under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully traversed.

As the Examiner will note, claim 10 has been amended to eliminate the informality referred to by the Examiner and accordingly it is believed that this rejection has been eliminated.

Claims 4-6 and 10 have been rejected by the Examiner under 35 U.S.C. § 113(a) as being unpatentable over Kwok (US 5,280,276) in view of Pearson Jr. (US 4,839,805), Vaghefi (US 6,429,851) and Gilbert (US 5,463,409). This rejection is respectfully traversed.

The present invention is directed to a multi-directional ball switch, which includes a panel having four diagonally-located fixtures each of which has an orthogonal shaft hole;

a ball knob placed on the panel;

a conversion means that transforms the rotation of the ball knob into an electrical signal;

a CPU connected to the conversion means and to a sound generation section;

a switching section that restrains the rotation of the ball knob and selectively generates output from the CPU;

and a signaled generation section connected to the CPU so that it increases the number of contacting points of the ball to control the directions of up/down and left/right rotation in front/back press of the ball.

The Examiner, in rejecting the claims of the present application has to rely upon four separate patents in an attempt to suggest the Applicants inventive contribution. Thus, the Examiner acknowledges that the Kwok patent fails to teach the use of four diagonally located fixtures and four rotational shafts and four click encoders. Also, the Kwok patent fails to show the use of a sound generation section and additionally a switching section that restrains the rotation of the ball knob and generates an output value for the CPU. Thus, the Examiner must rely upon the Pearson Jr. reference to teach the use of four click encoders for the dual control of

image level and window perimeters of a display. However, the encoders disclosed in the Pearson et al patent are not related to each other in defining a multi-directional ball switch as recited by the present invention. In addition, neither the Kwok or Pearson Jr. patents teach that the CPU is connected to a sound generation section and furthermore, the referenced patents fail to teach a switching section that restrains rotation of the ball knob and generates a output value for the CPU. To show the sound generation section of the present invention, the Examiner further relies upon the Vaghefi et al. patent, which discloses the use of a sound generation means 32 associated with a computer mouse. However, there is no appreciation that such a sound generation means can be used in association with a multi-directional ball switch such as that defined by the present invention.

In any event, the combination of the three patents discussed above still fail to teach a switching section for restraining the rotation of a ball knob and generating an output value for a CPU. Accordingly, the Examiner has to further rely upon the Gilbert patent to show a switching section that makes physical contact with a track ball which generates an output value for a CPU. However, the switching section of the Gilbert patent is structurally and functionally different from the switching section of the present invention as specifically detailed in claim 4 of the present application.

Thus, not only must the Examiner rely upon four different patents to create the multi-directional ball switch of the present invention, but in addition, the structural elements relied upon in each of the references are structurally and in some cases functionally different from the present invention and thus the only way in which the claims in the present application can be rejected over the prior art is to completely reconstruct the teachings of each of the references in view of the Applicants own disclosure. To combine prior art references to reject claims in 35 U.S.C. § 103, there must be some suggestion in the prior art as to why it would be obvious to combine the references as suggested by the Examiner. As noted here-in-above, the Kwok patent in disclosing two click encoders fails to teach the use of four diagonally located fixtures and four rotational shafts and four click encoders. Why would one skilled in the art find it obvious to use the four click encoders of the Pearson patent in the Kwok patent when there is no suggestion in

the Kwok patent of using other than two click encoders. Similarly, the Kwok and Pearson patents fail to teach that the CPU is connected to a sound generation section. In this connection why would one skilled in the art think to use the sound generation system of the Vaghefi patent in the Kwok patent when there is no suggestion to this effect. Going one step further, why would one skilled in the art find it obvious to add to the switching system of the Gilbert patent to the teachings of Kwok, Pearson and Vaghefi when, again, there is no suggestion in any of the references of using such a switching system. Even if, *arguendo*, it would be possible to add the switching system of Gilbert to the other prior art references, such a combination would certainly not suggest the subject matter of claim 4, which clearly defines a switching section which is both structurally and functionally different from the switching system of the Gilbert patent. Thus, the Gilbert patent does not show a stopper, including a supporting plate provided with a supporting ball located at the center of the supporting plate for supporting the ball knob and that such a switching section can be used in a multi-directional ball switch in valve four click encoders.

Accordingly, in view of the above amendments and remarks reconsideration of the rejection and allowance of the claims of the present application is respectfully requested.

If the Examiner has any questions or comments, please contact Joseph A. Kolasch, Reg. No. 22,463, at the offices of Birch, Stewart, Kolasch & Birch, LLP.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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